TEXAS DEPARTMENT OF INSURANCE

Engineering Services / MC 103-3A 333 Guadalupe Street P.O. Box 149104 Austin, Texas 78714-9104 Phone No. (512) 322-2212 Fax No. (512) 463-6693

PRODUCT EVALUATION

WIN-784

Effective July 1, 2011

The following product has been evaluated for compliance with the wind loads specified in the **International Residential Code** (IRC) and the **International Building Code** (IBC). This product shall be subject to reevaluation **January 2014**.

This product evaluation is not an endorsement of this product or a recommendation that this product be used. The Texas Department of Insurance has not authorized the use of any information contained in the product evaluation for advertising, or other commercial or promotional purpose.

This product evaluation is intended for use by those individuals who are following the design wind load criteria in Chapter 3 of the IRC and Section 1609 of the IBC. The design loads determined for the building or structure shall not exceed the design load rating specified for the products shown in the limitations section of this product evaluation. This product evaluation does not relieve a Texas licensed engineer of his responsibilities as outlined in the Texas Insurance Code, the Texas Administrative Code, and the Texas Engineering Practice Act.

Heritage Old World Classic Wood Operating Double Hung Windows, Individual, Non-Impact Resistant, manufactured by

Kolbe & Kolbe Millwork Co., Inc. 1323 South Eleventh Avenue Wausau, WI 54401 (715) 842 - 5666

will be acceptable in designated catastrophe areas along the Texas Gulf Coast when installed in accordance with the manufacturer's installation instructions and this product evaluation.

PRODUCT DESCRIPTION

The wood operating double hung windows evaluated in this report are non-impact resistant. This product evaluation report is for wood operating double hung windows based on the following tested constructions:

General Description:

System	Description	Label Rating	Hallmark Certification
1	Heritage Operating Old World	H-LC40 51 x 98	413-H-1081.00
	Classic Double Hung; Standard	LC-PG40 51x98 - H	413-H-1081.01
	Performance		
2	Heritage Operating Old World	H-LC65 51 x 98	413-H-1081.02
	Classic Double Hung; High	LC-PG65 51 x 98 - H	413-H-1081.03
	Performance		

Product Dimensions:

System	Overall Size	Top Sash Size	Bottom Sash Size
1	50 ¹³ / ₁₆ " x 98 ³ / ₆₄ "	43 ½ " x 47 ½ "	43 ½ " x 48 ¾ "
2	50 ¹³ / ₁₆ " x 98 ³ / ₆₄ "	43 ½ " x 47 ½ "	43 ½ " x 48 ¾ "

Glazing Description:

System	Glass Construction ¹	Glazing Method ²
1	IG-1	GM-1
2		

Note:

Glass Construction Key:

IG-1: Sealed insulating glass unit. The sealed insulating glass unit is comprised of two $\frac{5}{32}$ " annealed glass lites separated by a desiccant filled stainless steel spacer system. The glass thickness and type in the insulating glass units of the tested assembly and in smaller assemblies shall comply with ASTM E 1300-04.

Glazing Method Key:

GM-1: The insulating glass unit is set from the interior against a silicone backbedding and a ½" glazing bite. Wood glazing stops are utilized along the interior and are secured with brads spaced 1 inch from each end and 5 to 6 inches on center. A supplemental siliconized latex seal is applied to the interior side of the insulating glass unit at the interior wood glazing stops.

Frame Construction: The frame members consist of molded pine. The side jamb is located immediately next to the sash stiles. The weight box side jamb is separated by a gap to accommodate sash weights. The weight box extension jamb bounds the sash weight cavity on the interior. The exterior side blind stop bounds the sash weight cavity on the interior. The head to side jamb and the sill to side jamb are fastened together with silicone and staples. The head and side blind stops are fastened to the frame with staples. The weight box side jamb is fastened and glued to the weight box extension jamb with staples. The weight box side jamb is fastened and glued to the weight box divider with brads. Pulleys are fastened into the side jambs with screws. The head and side jamb parting stop is fastened to the side jamb with nails. The head and side jamb interior stop is fastened with screws and decorative washers. Brickmould: The head and side jamb brickmould is secured to the exterior blind stop with T-nails. The brickmould corners are secured together with screws. The sill nosing is secured to the sill with staples. The sill nosing is secured to the brickmould with screws.

Water Stop (System 2): A water stop shall be secured to the interior side of the sill with $1\frac{1}{4}$ " long brads spaced 2 inches from each end and approximately 8 to 10 inches on center.

Sash Construction: The sash members consist of molded pine. The sash corners are glued and secured with screws.

Hardware:

- Metal cam type sweep locks with angle screw keepers; Two (2) required; Located on the meeting rails.
- Pulleys; Four (4) required; Two (2) Located in each side jamb in pulley routes.
- Sash weights; Four (4) required; Two (2) located in each side jamb.

¹ See the "Glass Construction Key" for the glass construction.

² See the "Glazing Method Key" for the glazing method description.

Product Identification: A certification program label (WDMA Hallmark Certified) will be affixed to the window. The certification program label includes the manufacturer's name; product name; performance characteristics; the approved inspection agency (WDMA); and the applicable standards: AAMA/WDMA/CSA 101/I.S.2/A440-05 and AAMA/WDMA/CSA 101/I.S.2/A440-08.

LIMITATIONS

Design pressures (DP):

System	Overall Width (in.)	Overall Height (in.)	Design Pressure (psf)
1	50 ¹³ / ₁₆	98 3/64	+40/-70
2	50 ¹³ / ₁₆	98 3/64	+65/-70

Impact Resistance: This window assembly does not satisfy the Texas Department of Insurance's criteria for protection from windborne debris. This window assembly will need to be protected with an impact protective system when installed in areas where windborne debris protection is required.

Higher Negative Design Pressure: The WDMA Hallmark Certified label indicates the product was tested to a higher negative design pressure. The higher negative design pressure is indicated in the limitations section of this report.

Acceptance of Smaller Assemblies: Window assemblies with dimensions equal to or smaller than those specified above are acceptable within the limitations specified in this report.

INSTALLATION INSTRUCTIONS

General: The window assembly shall be prepared and installed in accordance with the manufacturers recommended installation instructions. Detailed installation instructions and drawings are available from the manufacturer.

Installation: The window assembly shall be fastened to minimum Southern Yellow Pine lumber. The window assembly is secured to the wall framing using Kolbe & Kolbe metal installation clips. The installation clips (1 $\frac{5}{8}$ " x 10 $\frac{1}{16}$ " x 0.04") are secured to the window frame head and side jambs. The clips are secured to the window frame with two (2) No. 8 x $\frac{3}{4}$ " screws. The clips are secured to the wall framing with two (2) No. 8 x 1 $\frac{1}{4}$ " screws. Along the head the fasteners shall be spaced approximately 12 $\frac{3}{4}$ inches from each end and approximately 12 $\frac{3}{4}$ inches on center. Along each side jamb the fasteners shall be located approximately 12 $\frac{1}{4}$ inches from each end and approximately 12 $\frac{1}{4}$ inches on center. The fasteners shall be long enough to penetrate a minimum of 1 $\frac{1}{2}$ inches into the wall framing. No fasteners are required in the sill.

Note: The manufacturer's installation instructions shall be available on the job site during installation. All fasteners shall be corrosion resistant as specified in the International Residential Code (IRC), the International Building Code (IBC), and the Texas Revisions.